



**NASSAU COUNTY
DEPARTMENT OF HEALTH**

106 CHARLES LINDBERGH BLVD.
UNIONDALE, NEW YORK 11553
VOICE: 516.227.9714
FAX: 516.227.9611

March 16, 2012

Mr. David D. Brayack, P.E.
Tetra Tech, Inc.
5700 Lake Wright Drive, Suite 309
Norfolk, Virginia 23502

Re: Engineering Plan Approval
Interim Emergency Treatment of
Trichloroethene-Contamination at
AQUA New York
Seaman's Neck Road Water Plant
NCDH File No. 3438-11

Dear Mr. Brayack:

Enclosed is one copy of the approved engineering plans and technical specifications for "Interim Emergency Wellhead Treatment Aqua New York Water Treatment Facility Seamans Neck Road Nassau County, New York for Naval Facilities Engineering Command Mid-Atlantic Prepared By: Tetra Tech NUS, Inc. December 2011". The approved engineering plans and specifications are for the installation of three (3) temporary liquid phase GAC filters for the removal of TCE and other VOCs from Seamans Neck Road Well No. 3S (N-8480) for a period of approximately 10 months or until such time as engineering plans for the installation of six (6) permanent liquid phase GAC filters are approved by the Department, and the filters are installed and approved for operation.

Please review the conditions of plan approval listed on the certificate including condition f. which requires that final approval for the discharge of filter backwash water be obtained from the Nassau County Department of Public Works, condition g. which requires that water quality testing of the completed works be conducted in accordance with the NCDH 2012 Water Quality Monitoring Requirements and condition h. which requires that Well 3S raw water and GAC filter treated water samples be collected and tested weekly by an approved laboratory for total iron, manganese and pH.

Mr. Russell Ford of CH2M HILL, Parsippany NJ has been retained by Naval Facilities Engineering Command, Mid-Atlantic on behalf of Aqua New to supervise construction, collect all necessary water quality samples and submit a certification of completion of this project in compliance with engineering plans and specifications approved this day. Mr. Ford is requested to call the Department to arrange for the inspection and testing of the facility when the construction of the plant has been completed and certified.

Mr. David D. Brayack, P.E.
March 16, 2012
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Thank you for your cooperation during our review of the engineering plans and specifications.

Very truly yours,



Michael J. Alarcon, M.S., P.E., Director
Bureau of Environmental Engineering

Copies:
AQUA New York
Attn: Matthew Snyder, President

Naval Facilities Engineering Command
Navy Region Mid-Atlantic
9742 Maryland Avenue
Norfolk, Virginia 23502
Attn: Robert G. Schirmer, Environmental Restoration Product Line Coordinator

NAVFAC
Navy Region Mid-Atlantic
Regional Environmental Group
Naval Weapons Station Yorktown
Building 406, Spring Road
Yorktown, Virginia 23691
Attn: Lora Fly, Commander

CH2M HILL
Attn: Russell Ford, PhD, PE, BCEE
119 Cherry Hill Road, Suite 300
Parsippany, New Jersey 07054

NYSDEC Stony Brook Regional Office
Attn: William Spitz, Regional Water Manager

NYSDOH
Attn: William Gilday, P.E.

Nassau County Department of Health
Bureau of Environmental Protection
Attn: Don Irwin, Director
Attn: Carol Johnson (E-Mail)
Bureau of Environmental Engineering
Attn: Patricia Ramirez, P.E. (E-Mail)
Attn: Robert Weitzman, P.E.
Attn: Salvatore Caruso (E-Mail)

Approval of Plans for Public Water Supply Improvement

This approval is issued under the provisions of 10 NYCRR, Part 5:

1. Applicant NAVAL FACILITIES ENGINEERING COMMAND OBO AQUA NEW YORK	2. Location of Works (C, V, T) TOWN OF HEMPSTEAD	3. County NASSAU	4. Water District (Specific Area Served) AQUA NEW YORK
5. TYPE OF PROJECT <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"><input type="checkbox"/> 1 Source</div> <div style="width: 50%;"><input type="checkbox"/> 3 Pumping units</div> <div style="width: 50%;"><input type="checkbox"/> 5 Fluoridation</div> <div style="width: 50%;"><input type="checkbox"/> 7 Storage</div> <div style="width: 50%;"><input type="checkbox"/> 2 Transmission</div> <div style="width: 50%;"><input type="checkbox"/> 4 Chlorination</div> <div style="width: 50%;"><input type="checkbox"/> 6 Other Treatment</div> <div style="width: 50%;"><input type="checkbox"/> 8 Distribution</div> <div style="width: 50%;"><input checked="" type="checkbox"/> 9 Other: VOC Removal by GAC Adsorption</div> </div> REMARKS: Installation of three (3) temporary liquid phase GAC filters for the removal of TCE and other VOCs from Seamans Neck Road Well No. 3S (N-8480) located in Levittown in the Town of Hempstead.			
NCDH FILE No. 3438-11			

By initiating improvement of the approved supply, the applicant accepts and agrees to abide by and conform to the following:

- a. THAT the proposed works be constructed in complete conformity with the plans and specifications approved this day or approved amendments thereto.
- b. THAT the proposed works not be placed into operation until such time as a Completed Works Approval is issued in accordance with Part 5 of the New York State Sanitary Code.
- c. THAT any proposed deviation from the plans or specifications be brought to the attention of the Nassau County Department of Health (NCDH) and receive written approval prior to initiation.
- d. THAT the project shall be under the supervision of a person or firm qualified to practice professional engineering in the State of New York under the Education Law of the State of New York.
- e. THAT the person or firm supervising the project certify to the NCDH and to the permittee that the facilities have been under his supervision and that the works have been fully completed in accordance with the approved engineering report, plans, specifications and permit.
- f. THAT approval must be obtained from the Nassau County Department of Public Works for the disposal of GAC filter rinse or backwash water to the public sewer system.
- g. THAT water quality testing of the Interim (temporary) GAC filters and Seamans Neck Road supply wells and treatment facilities must be completed in accordance with the NCDH 2012 Water Quality Monitoring Requirements.
- h. THAT Aqua New York collect samples of the Well 3S raw water and the effluent of each GAC filter weekly, submit the samples to an approved laboratory for total iron, manganese and pH testing, and submit the results of the testing to the NCDH on a minimum monthly basis.

March 16, 2012

Date

ISSUED FOR THE STATE COMMISSIONER OF HEALTH

Michael J. Alarcon, P.E.

Designated Representative

Michael J. Alarcon, M.S., P.E., Director
Bureau of Environmental Engineering

GENERAL

6. Type of Ownership		<input type="checkbox"/> 68 Private – Other	<input type="checkbox"/> 1 Authority	<input type="checkbox"/> 30 Interstate
<input checked="" type="checkbox"/> Municipal	<input type="checkbox"/> Commercial	<input type="checkbox"/> Private – Institutional	<input type="checkbox"/> 19 Federal	<input type="checkbox"/> 40 International
<input type="checkbox"/> Industrial	<input type="checkbox"/> Water Works Corp.	<input type="checkbox"/> 26 Board of Education	<input type="checkbox"/> 20 State	<input type="checkbox"/> 18 Indian reservation
7. Estimated Total Cost \$ 500,000.	8. Population Served 173,000	9. Drainage Basin -----		
10. Federal Aid Involved? <input checked="" type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No		11. WSA Project? <input type="checkbox"/> 1 Yes <input checked="" type="checkbox"/> 2 No		

SOURCE NOT APPLICABLE

12. <input type="checkbox"/> Surface Name:	Class:	13. Est. Source Development Cost
<input type="checkbox"/> Ground Name:	Class:	
14. Safe Yield	15. Description	

TREATMENT

16. Type of Treatment: <input type="checkbox"/> 1 Aeration (Packed Tower) <input type="checkbox"/> 4 Sedimentation <input type="checkbox"/> 7 Iron Removal <input type="checkbox"/> 10 Softening <input type="checkbox"/> 2 Micro-strainers <input type="checkbox"/> 5 Clarifiers <input type="checkbox"/> 8 Chlorination <input type="checkbox"/> 11 Corrosion Control <input type="checkbox"/> 3 Mixing <input type="checkbox"/> 6 Filtration <input type="checkbox"/> 9 Fluoridation <input checked="" type="checkbox"/> 12 Other: GAC VOC Removal/Adsorption			
17. Name of Treatment Works Organic Chemical Removal GAC Treatment	18. Max. Treatment Capacity 3.0 MGD	19. Grade of Plant Operator Req.	20. Est. Cost \$ 500,000.
21. Description: See Item 5. Installation of three (3) temporary liquid phase GAC filters for the removal of TCE and other VOCs from Seamans Neck Road Well No. 3S (N-8480). Includes piping modifications and use of the existing sodium hypochlorite and sodium hydroxide treatment and discharge with Well 4S to the existing iron removal filtration plant prior to entry into the distribution system.			

DISTRIBUTION NOT APPLICABLE

22. Type of Project Distribution Mains <input type="checkbox"/> 1 Cross Connection <input type="checkbox"/> 2 Interconnection <input type="checkbox"/> 3 Transmission <input type="checkbox"/> 4 Fire Pump Cl ₂	23. Type of Storage Elevated : _____ M gallons Underground _____ M gallons	24. Est. Distribution Cost
25. Anticipated Distribution System Demand: Average: _____ MGD Max. _____ MGD		26. Designed for fire flow? <input type="checkbox"/> Yes <input type="checkbox"/> 2 No
27. Description		